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AUTHORITY

AGO D/A ltr, 29 Apr 1980

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DEPARTMENT OF THE ARMY
OFFICE OF THE ADJUTANT GENERAL
WASHINGTON, D.C. 20310

IN REPLY REFER TO

AD 868323

AGDA (M) (31 Mar 70) FOR OT UT 701010

14 April 1970

SUBJECT:- Operational Report - Lessons Learned, Headquarters, 809th Engineer Battalion, Period Ending 31 January 1970

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2. Information contained in this report is provided to insure appropriate benefits in the future from lessons learned during current operations and may be adapted for use in developing training material.

BY ORDER OF THE SECRETARY OF THE ARMY:

KENNETH G. WICKHAM
Major General, USA
The Adjutant General

1 Incl
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UNCLASSIFIED REPORT

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ASSISTANT CHIEF OF STAFF FOR FORCE DEVELOPMENT
(ARMY) ATTN FOR OT UT. WASHINGTON, D.C. 20310

DEPARTMENT OF THE ARMY
HEADQUARTERS 809TH ENGINEER BATTALION (CONSTRUCTION)
APO San Francisco 96489

THCON-BOP

9 February 1970

SUBJECT: Operational Report and Lessons Learned of the 809th Engineer Battalion (Construction) for the Period Ending 31 January 1970.
RCS CSFOR-65 (R1) WCW3 AA.

1. Section 1, Operations: Significant Activities

a. The current mission of the 809th Engr Bn consists of four main elements:

(1) To upgrade and pave 86.2 KM of Route 22 between Sakon Nakhon and Nakhon Phanom to an all-weather, two-lane, class 50 road.

(2) To complete certain specified MCP construction projects for the US Air Force at Nakhon Phanom Royal Thai Air Force Base.

(3) To upgrade 75.1 KM of Route 223 between Sakon Nakhon and That Phanom to an all-weather, two-lane, class 50 road.

(4) To engage in civic action projects, to include well drilling, consistent with current guidance and assets.

b. Several major attachments/detachments and a change of command occurred within this reporting period.

(1) The 144th Engr Det was attached to HHC, 809th Engr Bn in November 1969. This detachment has a direct support engineer maintenance capability and was attached to the 809th Engr Bn to augment the same capability in A Company. In addition the 144th Engr Det now operates the engineer maintenance float equipment for the battalion. This attachment has in this short time proven to be extremely successful and has improved the maintenance capability of the battalion.

(2) The Earthmoving Platoon of the 561st Engr Co (Const) was detached on 10 Jan 70 and returned to its parent unit in Korat. This platoon had been attached to C Company and was contributing a substantial effort in the completion of Route 22 mission.

(3) The 101st and 182nd Well-Drilling detachments were inactivated on 1 Jan 70. The rotary drilling rig authorized under a MTO&E was turned in; however, the percussion drilling rigs were transferred to A Company

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701010

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who assumed the well drilling mission. Proposed MTO&E for the 809th Engr Bn has been submitted to USARSUPTHAI authorizing A Company to retain these two percussion drilling units.

(4) HQ 44th Engr Gp was inactivated on 1 Jan 70. At that time the 809th Engr Bn came under the command and control of the Commanding General, USARSUPTHAI.

(5) On 19 December 1969 at a battalion ceremony, command of the 809th Engr Bn passed from LTC Marvin J. Krupinski to LTC Joseph S. Wood Jr.

c. The upgrading and paving of Route 22 progressed well during the reporting period. Early November brought an end to bad weather and only a few areas retained enough water to delay that work until later. By mid-December the dry season was established and the construction season was in full swing. During this period work progressed in all areas — subgrade preparation, lower base lime/cement soil stabilization, base course preparation, asphalt paving, quarry production, and installation of drainage structures. Taking advantage of the dry season, 17 box culverts and 5 pipe culverts were completed and work began on 11 box culverts and 5 pipe culverts. The horizontal effort during the reporting period consisted of bringing 16 KM of road to subgrade elevation: stabilizing 11.67 KM of road; hauling 16,731 M³ of base course; preparing 12.58 KM of base course; crushing 22,313 M³ of blast rock at the quarry; and laying 12.39 KM of asphalt surface. The overall project completion on 31 October 1969 was approximately 33% and at the end of this reporting period is approximately 48%. The details of this work are broken out below by company;

(1) Company A continued its mission of direct support engineer equipment maintenance to all organic and attached units plus construction equipment support to specific MCA projects. In addition, on 7 January 1970 A Co assumed operation of the battalion rock quarry formerly operated by the 54th Engr Co (CS). Company A has supported the 23d Engr Bn (RTA) with equipment for work on RT 223 with 350 US man hours and 380 equipment hours.

(2) Company B during this period has shifted the majority of its vertical construction effort to AF projects but completed some work on Route 22. A change was made assigning horizontal construction from KM 206+800 to KM 214+757 to Company D. This allowed the shift of Company B construction platoons to the Air Force Projects at NKP Royal Thai Air Force Base. Air Force construction is now the primary mission for Company B. On Route 22, B Co expended the following man hours:

	<u>US</u>	<u>LN</u>
Horizontal	7,970	4,366
Vertical	5,052	13,720

There were a total of 10,731 equipment hours expended.

(3) During this reporting period Company C and the attached Earthmoving Platoon of the 561st Engr Co (Const) moved ahead on vertical and horizontal efforts on Route 22. Company C expended the following man hours on Route 22.

	<u>US</u>	<u>LN</u>
Horizontal	8,031	4,687
Vertical	9,563	15,261

A total of 12,163 equipment hours were expended. C Company's sector has the largest number of drainage structures remaining to be installed and a concentrated effort was made to initiate that work. The progress has been excellent and all this work should be completed by the end of the next reporting period.

(4) Company D has continued construction on Route 22 and engaged in all stages of construction during this reporting period. Sub grade preparation has been concentrated, during the past quarter, toward the eastern end of the sector from KM 198+484 to KM 206+300. By the end of the quarter this area was completed at sub grade and lower base levels. The following is a summary of the man hours expended in the construction efforts of Company D.

	<u>US</u>	<u>LN</u>
Horizontal	14,080	6,110
Vertical	10,773	17,342

A total of 13,153 equipment hours were expended.

(5) The 54th Engr Co (CS) continued in its primary mission of operating the quarry and crushing the base course material for Route 22 and operation of the asphalt plant until 7 January when the operation of the quarry was given to Company A. The total output of base course quarry rock was 22,000 cubic meters, a substantial gain over the last reporting period's 7,300 cubic meters. This increase can be attributed to several factors:

(a) During the prior period three 75 tph rock crushers were on line and at least two crushers were in operation daily.

(b) Increased emphasis on removing overburden resulted in the removal of approximately 85,000 cubic meters of earth, leaving only 5% of the original overburden to be removed.

(c) The three drills on hand (two commercial and one military operational at the beginning of the period) were sufficient so that blast rock supply was never short for more than 24 hours.

Asphalt production: On 20 October 1969, full scale asphalt paving

operations were reinitiated after a four month down time due to the rainy season. Since that time, 12,390 meters of two-lane road have been paved over a period of twenty-four operational days.

The total number of man hours and equipment hours expended by the 54th Engr Co (CS) is shown below:

<u>Location</u>	<u>US Hours</u>	<u>LN Hours</u>	<u>Equipment Hours</u>
Quarry	27,038	11,945	12,567
Asphalt Plant	10,500	0	3,750

(6) During the reporting period the 16th Engineer Company (Dump Truck) had as its primary mission the support of road construction operations conducted by the 809th Engineer Battalion (Construction). These support activities included hauling laterite for subgrade operations, the transport of asphalt for paving operations and the stockpiling of sand and materials for Air Force construction projects.

This quarter's significant haul report is as follows:

Item: Asphalt - 6,094 M³

Item: Crushed Rock - 7,695 M³

(7) The 91st Engr Co (DT) continued its support mission with its haul capability being utilized on Route 22. Located at Ruam Chit Chai, the 91st Engr Co (DT) was utilized primarily for hauling base course material to all three line companies. Other day-to-day commitments arose on an infrequent and irregular basis but these consumed only a fraction of the operational effort. A total of 9,056 M³ of base course was hauled.

d. The work on USAF projects fully materialized during this reporting period. The total value of the ten projects currently assigned is approximately \$800,000. Despite numerous delays experienced due to lack of plans or status on materials, by early November work had started on some of the AF projects and by mid-December the shift of both vertical construction platoons to USAF projects was completed. The majority of the Air Force work is vertical allowing horizontal effort to continue on Route 22. Following are the Air Force projects:

(1) AF-N-69-2; Sanitary Sewers: This project involves installation of 4,000 feet of primary sewer line, installation of 3 lift stations, and improvement of a sewage lagoon with a total fund ceiling of \$25,000. The upgrading of the sewage lagoon has been finished.

(2) AF-N-69-3; Water Supply and Treatment: This project entails construction of two concrete water storage tanks, 40' x 40' x 14', as a part of the water treatment plant. These are 3,000 barrel tanks and are designed to be operated at ground elevation. Work has not yet started on this project which has a fund ceiling of \$25,000.

(3) AF-N-69-4; Water Mains: This project includes installation of approximately 9,000 meters of 6 inch primary water line. Initial work has started on this \$50,000 project with an expenditure of 524 US man hours and 1,036 LN man hours.

(4) AF-N-69-5; Perimeter Security Package: This project involves a single surface treatment of the perimeter road, installation of a perimeter lighting system, and repair of a section of perimeter fence. This reporting period all fence repair was accomplished, road shaping and ditching was started, and 5,500 feet of electrical wire was strung. A total of 466 US man hours and 57 LN man hours was expended on this \$75,000 project.

(5) AF-N-69-6; Utilities Tie-in: This is the largest single project with a fund ceiling of \$365,000. It involves installation of approximately 4,000 feet of secondary sewer line, 19 man holes, bypass of 36 septic tanks, and upgrading of the water reservoir at NKP. Some work has begun with the expenditure of 556 US man hours and 511 LN man hours.

(6) AF-N-69-7; Primary Electrical Distribution: This project consists of two major activities with a fund ceiling of \$50,000. The largest task is the replacement or installation of 135,000 feet of primary electrical wire. The other is the replacement of the existing underground runway lighting system. To date, 251 US man hours and 1,408 LN man hours have been expended.

(7) AF-N-69-11; Revetments: The total scope of work involved is the erection and filling of 1454 feet of 12 foot high air craft revetments. This project was started and completed during the reporting period. A total of 3,033 US man hours and 11,842 LN man hours were expended. A fund ceiling of \$60,000 was set on this project.

(8) AF-N-69-12; Squadron Operations Bldg: Two 40' x 100' Butler pre-engineered buildings are to be constructed as headquarters/administrative areas for units at NKP. Foundation work began during this reporting period and a total of 1,389 US man hours and 1,718 LN man hours were expended. The fund ceiling on this project is \$128,000.

(9) AF-N-69-14; Aircraft Maintenance Bldg: One 40' x 120' Butler pre-engineered building is to be constructed as an aircraft maintenance facility with a fund ceiling of \$60,000. Foundation work has started with 223 US man hours and 392 LN man hours expended.

(10) AF-N-69-15; Utilities: This project for \$20,000 involves connection of water, sewer, and power lines of projects 69-12, 69-14, and one officer's BOQ. The connections for the officer's BOQ have been completed.

e. The 809th Engr Bn did not direct any of its efforts during the reporting period on its mission on Route 223. The work that is currently being done is by the 23d Engr Bn (RTA) under the operational control of the 809th Engr Bn. Initially their efforts consisted of bringing the road to subgrade elevation in sections between the 23d Engr Bn base camp

and the town of Na Kae. Since the design is incomplete for Route 223 and some equipment maintenance problems exist within the 23d Engr Bn, in early January 1970 a shift in effort was made from road construction to installation of drainage structures and ditching the existing roadway. These operations are progressing well. Bypasses were constructed at six culvert locations and preparation of the culvert beds is in progress. Use of metal pipe culverts in lieu of concrete box culverts has increased the speed of installation.

f. The well-drilling operation of the 101st and 182nd Well Drilling Detachments continued until 1 Jan 70, when these units were inactivated. After 1 Jan 70, Company A assumed the well drilling mission.

(1) Co A, Rotary Well Drilling Team: Drilled a 200 foot well for Company A motor pool at Ruam Chit Chai, completing it on 14 December 1969, the rig was then turned in.

(2) Percussion Team # 1: On 5 November 1969, this rig re-drilled a well at Camp Ruam Chit Chai from 145 feet to 250 feet and reset the pump. After completion of this well, the rig was then moved to WARIN IWCS on 22 November 1969.

(3) Percussion Team #2: This percussion team completed a well at Na Kae at 250 feet.

2. Section 2, Lessons Learned: Commanders Observations, Evaluations and Recommendations

a. Personnel

(1) Inadequately trained equipment operators.

(a) Observation: The majority of new men assigned from AIT units with an operator MOS are poorly trained in the operation and maintenance of their assigned equipment. They are also unfamiliar with basic 2400 series forms.

(b) Evaluation: Until these operators have been trained properly they cannot be expected to adequately perform these assigned duties. Unit training time should be spent in reviewing and enlarging the operators knowledge of his equipment and not in teaching basic principles.

(c) Recommendation: Improve the quality of education at the AIT schools. Remedial classes on basic operator subjects are being conducted by this unit with trained instructors to correct deficiencies.

(2) Supervision of Dump Truck Company Operators.

(a) Observation: The dump truck companies are not presently authorized truck masters to handle the operational aspects of the company. Their dispersed activities have resulted in many operations being inadequately supervised.

(b) Evaluation: The widespread operations of the companies and the varied tasks assigned require the full-time attention of some control element.

(c) Recommendation: Assign E7 truck masters (MOS 64C40) to each truck company or establish a company operations section to function as an overall control/coordinating element. This latter concept has proven quite successful in operation of the 16th Engr Co (LT) and the 91st Engr Co (DT).

(2) Lack of Construction Supervisors

(a) Observation: Presently the battalion is critically short on E6's with a 51H40 MOS. The three line companies have only 6 of their allotted 18 CO's in this particular category.

(b) Evaluation: The simultaneous operation of from 3 to 5 vertical construction projects for Company C and D and the widespread operations of Company B require the constant supervision of competent, mature squad leaders. In order to attain the desired consistent efficiency of operation it is essential that supervisory personnel be present. An OJT program for NCO's in other MOS's has proven only marginally successful. This lack of supervision has required increased efforts by the platoon sergeant and platoon leader; but again, this solution has been only partially successful.

(c) Recommendation: The critical shortage of this particular classification of individual should be stressed through higher channels. If this shortage is Army-wide, it is suggested that an intensive program be initiated to attract qualified personnel to the 51H MOS classification.

b. Operations

(1) Prefabricated Culvert Placement.

(a) Observation: During the last rainy season a number of box culverts were prefabricated in sections to be placed during the dry season. Placement of the culvert sections depended upon the availability of a 20 ton crane. Due to nonavailability of replacement lifting clutches all battalion 20 ton cranes were deadlined for heavy lifting. Company D, in particular, was handicapped since their culvert sections weighed from 13 to 17 tons and the available 12½ ton cranes were incapable of lifting these sections. Finally hydraulic jacks were used to load the culverts on 25 ton lowboys and move them to the job site. One double 180 x 180 centimeter culvert was placed completely using jacks but the job was definitely timeconsuming.

(b) Evaluation: Much time and effort was lost on what otherwise would have proven to be a time saving idea.

(c) Recommendation: Precast concrete work should be sized so that alternative handling methods can be utilized. Lifting requirements should not depend upon the full rated capacity of the crane, especially

if any movement of the crane, besides lifting, is involved.

(2) Asphalt

(a) Observation: Aggregate deliveries continue not to meet contract specifications for the 3/8" minus size. In addition, the #8 and #16 materials are not strictly within specifications. The subsequent batching operations at the asphalt plant create a large amount of waste material. Projected volume estimates for future aggregate requirements are subsequently inaccurate.

(b) Evaluation: Projected quantities of various size aggregates cannot now be relied upon. Since the gradation of the delivered aggregate varies over a wide range on both sides of the curve it is impossible to recalculate requirements. Uneconomical quantities of waste aggregate occur which may push the final cost for aggregate over the estimated requirements. Although by terms of the contract, the battalion is entitled to refuse deliveries of material not within gradation specifications, it is questionable whether the contract could be fulfilled by any other contractor in Thailand. Unacceptable delays in construction progress would probably occur from refusing to accept aggregate.

(c) Recommendation: That additional research be accomplished prior to award of contracts to determine if a contractor can, in fact, fulfill the terms of his contract, and in the event he will not, proper action be taken to force compliance to or relet the contract.

(3) Water Resources

(a) Observation: Water sources are becoming difficult to locate at convenient locations along the construction area. The turn around times are getting longer as construction moves further away from the water points. Also the water trucks are developing numerous cracks in the tank subframes.

(b) Evaluation: Large quantities of water are required throughout the dry season for compaction of subgrade, lime stabilization, and upper base compaction. Long haul distances and water truck maintenance problems may soon severely limit the ability to adequately prepare the supporting courses of road.

(c) Recommendation: Large scale water retention ponds should be constructed towards the end of the dry season to provide conveniently located water points along the construction route. Additional water hauling capability could be supplied through the utilization of 5000 gallon fuel trailers which are no longer suitable for transportation of POL and can be easily modified to make ideal water trailers.

(4) Potential Road Failures

(a) Observation: During the past rainy season (July through October 1969) numerous extensive subgrade failures occurred on yet virgin road. At the time it was impossible to adequately remove and fill these

soft spots. As the rains ended and normal work resumed the exact location of these failures was forgotten. Personnel turnover has further complicated the situation. The dry season has dried up the road to the point where potential danger spots can no longer be identified. All experienced individuals present during the last rainy season are being queried on the location of failures which occurred last rainy season.

(b) Evaluation: Much valuable information has been lost which would have been expeditious for locating and repairing soft spots during the construction season.

(c) Recommendation: A log should be kept to record locations where failures occur. These locations should be marked so as to be easily identifiable during the dry season for major reworking. As soon as a new road project is opened the existing road should be stressed with continual rolling of a 35 ton or 50 ton roller to locate all the inferior road sections before the rainy season.

(5) Haul Distance

(a) Observation: The section of Route 22 from KM 156 to KM 168 relies on one borrow pit situated about 5 kilometers off the road at KM 164. The turnaround time for the 290 M tractor is approximately 54 minutes. Eight tractors, therefore, can only haul about 1000 cubic meters per day, equivalent to 200 meters per day of finished subgrade.

(b) Evaluation: The combination of high volume and long haul distances results in slow progress in this section of road. The section from KM 156 to KM 164 would take two months to complete the subgrade and lower base haul using scrapers alone. Additional fill is now being hauled by dump trucks which normally pass through the area on the way to the quarry. CBR tests of the roadside borrow material indicates that the silty-sand material will be satisfactory as a subgrade material.

(c) Recommendation: That selective fill from roadside borrow of inferior grade be used in all areas to fill to the limit of 35 cm below lower base elevation, then haul only the minimum amount of laterite. In-place CBR tests should be used to determine the field conditions of the existing embankment material so that maximum use is made of suitable, locally available material.

(6) Lower Base Stabilization

(a) Observation: The design of Route 22 calls for a 15 cm lift of laterite stabilized with 2 - 3% lime or cement by weight. Several methods have been tried in an attempt to evenly distribute the applied lime or cement, to protect the troops from skin irritations and to maximize the production rate. The process reverts to three steps; the spreading of the lime or cement on the laterite; the thorough mixing of the laterite, water and lime or cement; and the compaction of the mixture.

1. The lime or cement has been spread by dropping the bags on the road, breaking the bags, and spreading either by rake or grader.

2. Mixing of the laterite has been accomplished by means of windrowing with a grader, a disc harrow, or rotary mixers. Two types of rotary mixers have been utilized - truck mounted type with integral tank and the tractor mounted tankless type.

3. Compaction has been performed by sheepsfoot rollers, vibratory rollers, or 35 ton rubber wheeled rollers or by a combination of two or more of these.

(b) Evaluation: The combination of stabilization techniques which finally won acceptance by Delta Company was to spread the lime in piles on the road, premix it into the laterite by scarifying, windrowing by graders, and watering and windrowing until optimum moisture content is reached followed by compaction by sheepsfoot and vibratory rollers. Shortages of operational graders has forced the reliance on the tankless rotary mixer which is preferred over the tank truck which does not have the tank capacity or power to accomplish its task expeditiously. The techniques of lime stabilization are most readily learned from experience.

(c) Recommendation: That studies be made on the optimum equipment and techniques for accomplishing this task. The optimum solution may vary depending on such local factors as available equipment, type of soil being stabilized, and water hauling capacity.

(7) Upper Base Preparation

(a) Observation: Crushed rock for upper base is being spread with a Jersey-type spreader box mounted on a HD16 dozer. When spread on a final graded base the thickness is very well controlled. The base course had to be watered after placement for rolling. It was found that the water was washing the fines down to the bottom of the rock, causing a very open surface which either had to be choked with crusher fines or extensively rolled to break up the surface rock. It was observed that base course which had been stockpiled during the wet season and was wet upon placement was readily compacted with the addition of little or no water and that no segregation occurred upon placement. Presently the base course is being watered while in the truck and placed directly into the spreader. Mixing occurs in the dumping process and the damp base course is then readily compacted.

(b) Evaluation: Pre-wetting the base course in the trucks provides for much better compaction and requires much less support from the hard-pressed water trucks.

(c) Recommendation: That all base course be pre-wet before placement. Care must be exercised to only wet the base course and not wash it. Too much water applied to the bed of the truck will wash the fines away.

(8) Construction Bypass Roads

(a) Observation: It has been a general policy to construct bypass roads along the entire road to bypass civilian traffic around horizontal construction activities. Where possible an attempt has been made to separate civilian and military traffic by restricting civilian traffic to the bypass roads.

(b) Evaluation: Although additional effort is required to maintain the bypass road, the improvement in safety and increased productivity of lift operations are obvious.

(c) Recommendation: Bypass roads be made SOP unless conditions prohibit.

(9) Bridge Raising

(a) Observation: While raising one of the bridges it was found that two of the four crib supports were sinking at a rate up to 3 inches in one night. Increasing the footer size reduced the settling but did not eliminate the situation.

(b) Evaluation: In order to eliminate settling of the slab until the new abutment and pile caps could be constructed, Steel I-beam sections with rubber cushions were placed in between the existing caps and slab. The reinforcing steel was woven around the supports and the concrete poured up to the bottom of the slab. Additional load on the bridge will cause the cushions to flex and allow the full force to transfer to the concrete.

(c) Recommendation: Raise bridges in this manner where the soil is not strong enough to support the cribbing.

(10) Helicopter Support

(a) Observation: The 809th Engineer Battalion (Construction) is presently dispersed over a 110 kilometer length of road and is responsible for the operation of a quarry located 20 kilometers off the road. It is also working closely with the 23d RTA on Route 223, which includes another 55 kilometers of responsibility. The total number of personnel under the control of the 809th Engr Bn is approximately 3300. This unit had an operational helicopter for 29 days during this reporting period with 66 flying hours in support of the mission.

(b) Evaluation: An exorbitant amount of time is consumed in travel to cover the project and inspect the construction activities. Additional valuable time is consumed by key members of the battalion when necessity dictates conferences.

(c) Recommendation: The size and complexity of the mission assigned to the 809th Engineer Battalion (Construction) requires the full-time support of a helicopter. Helicopter support of such isolated engineer units should be provided when available.

(11) Air Force Construction

(a) Observation: The battalion was formally assigned the mission of civil engineer support for the NKP RTAFB in the Fall of 1969. Preliminary studies of the scope of work and supply problems failed to indicate the fact that the project would be much more extensive than foreseen and that materials would not be on hand to complete the job. Tasks were eventually assigned of a nature which the battalion was unprepared for by training, manpower, or specialized equipment.

(b) Evaluation: The expansion of the project has resulted in the necessity of committing more effort at the expense of the primary mission of constructing Route 22. Undefined priorities of the projects have led to unfortunate misunderstandings between ourselves and Air Force personnel. The large scope of work and constant liaison required with Air Force personnel has led to the assignment of a badly needed battalion supervisory officer to a full time responsibility to this project.

(c) Recommendation: That all projects be adequately described in scope and priority. Once a complete description of all required work is established it should not be modified without due regard to the overall mission of the battalion for additional modifications altering the scope of work disrupt overall construction planning and scheduling.

f. Material

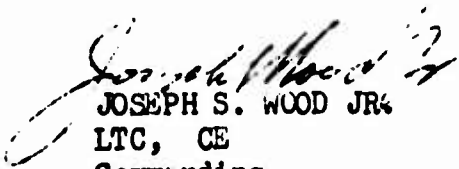
(1) Maintenance of Dump Trucks

(a) Observation: The dump truck companies are presently driving more than 180 miles per day over rough road while hauling base course. The operators and mechanics are spending from two to four hours per day on maintenance of trucks. Cracked frames and numerous additional cracks are continuously coming into evidence. The length of the road project (47 miles) requires intensive road maintenance efforts by the three line companies. It has been difficult to free necessary equipment from the construction mission to properly maintain the haul roads. The laterite road surface wash boards in about one week after a complete scarification and recompaction.

(b) Evaluation: The high deadline status of five-ton trucks is caused by speeding, rough roads, and repair parts supply.

(c) Recommendation: That intensive maintenance programs, adequately supervised motor stables and an extensive road maintenance program receive high priority from the start of the project.

17 Incl
1 - Organizational Chart
~~2 - Mission Chart~~
~~3 - 17 Photographs~~
Incls 2 - 17 wd HQ, DA


JOSEPH S. WOOD JR.
LTC, CE
Commanding

THOP-OP (31 Jan 70) 1st Ind
SUBJECT: Operational Report of the 809th Engineer Battalion
(Const) for Period Ending 31 January 1970, RCS
CSFOR-65 (R1)

DA, Headquarters, United States Army Support, Thailand,
APO 96233

7 MAR 1970

THRU: Commander in Chief, United States Army Pacific,
ATTN: GPOP-DT, APO 96558

TO: Assistant Chief of Staff for Force Development,
Department of the Army, Washington, D.C. 20310

The Operational Report of the 809th Engineer Battalion
(Const) has been reviewed and is forwarded with the
following comments:

a. Concur with recommendation in para 2a(1)(c),
Section 2.

b. Reference para 2a(2)(c), Section 2. Dump truck
companies are authorized two E6, MOSC 64C40 each. This
headquarters cannot requisition and assign E7 personnel
against authorized E6 positions. The commander will be
instructed to initiate under TAADS a request for a sub-
stantive change to MTOE for upgrading positions.

c. Nonconcur with para 2a(2)(c), Section 2. A
shortage in grade E6, MOSC 51H40 does exist. The unit
presently has an overage of personnel in grade E7, MOSC
51H40. They will be instructed to utilize these personnel
to provide supervision. The overage is attributed to
diversion from units already inactivated or scheduled
for inactivation plus DA fill of previously cancelled
items.

d. Additional comment to para 2b(11), Section 2,
Air Force Construction. Adjustment of scope of work is
consistent with the necessity of providing the Air Force
with usable facilities as required by law for military
construction projects. Efforts expended by the Army
construction force is within the obligations established
by the current Inter-Service Support Agreement.

e. Concur with all other comments. Appropriate
action will be taken to initiate recommendations with
the exception of para 2a(2)(c). Scheduled redistribution

7 MAR 1970

THOP-OP

SUBJECT: Operational Report of the 809th Engineer Battalion
(Const) for Period Ending 31 January 1970, RCS
CSFOR-65 (RI)

of personnel assets in MOSC 51H40 and an overstrength in
grade E7 will enable commanders to solve this problem at
the local level.

FOR THE COMMANDER:



R.G. WOOLWEAVER
MAJOR AGC
ASST ADJUTANT GENERAL

GPOP-DT (11 Mar 70) 2d Ind

SUBJECT: Operational Report of HQ, 809th Engineer Battalion for Period
Ending 31 January 1970, RCS CSFOR-65 (RI)

HQ, US Army, Pacific, APO San Francisco 96558 26 MAR 70

TO: Assistant Chief of Staff for Force Development, Department of the
Army, Washington, D. C. 20310

1. This headquarters has reviewed subject report.
2. US Army Support, Thailand, has been asked to provide information concerning corrective action taken reference paragraph 2b(2), Section II of basic.

FOR THE COMMANDER IN CHIEF:

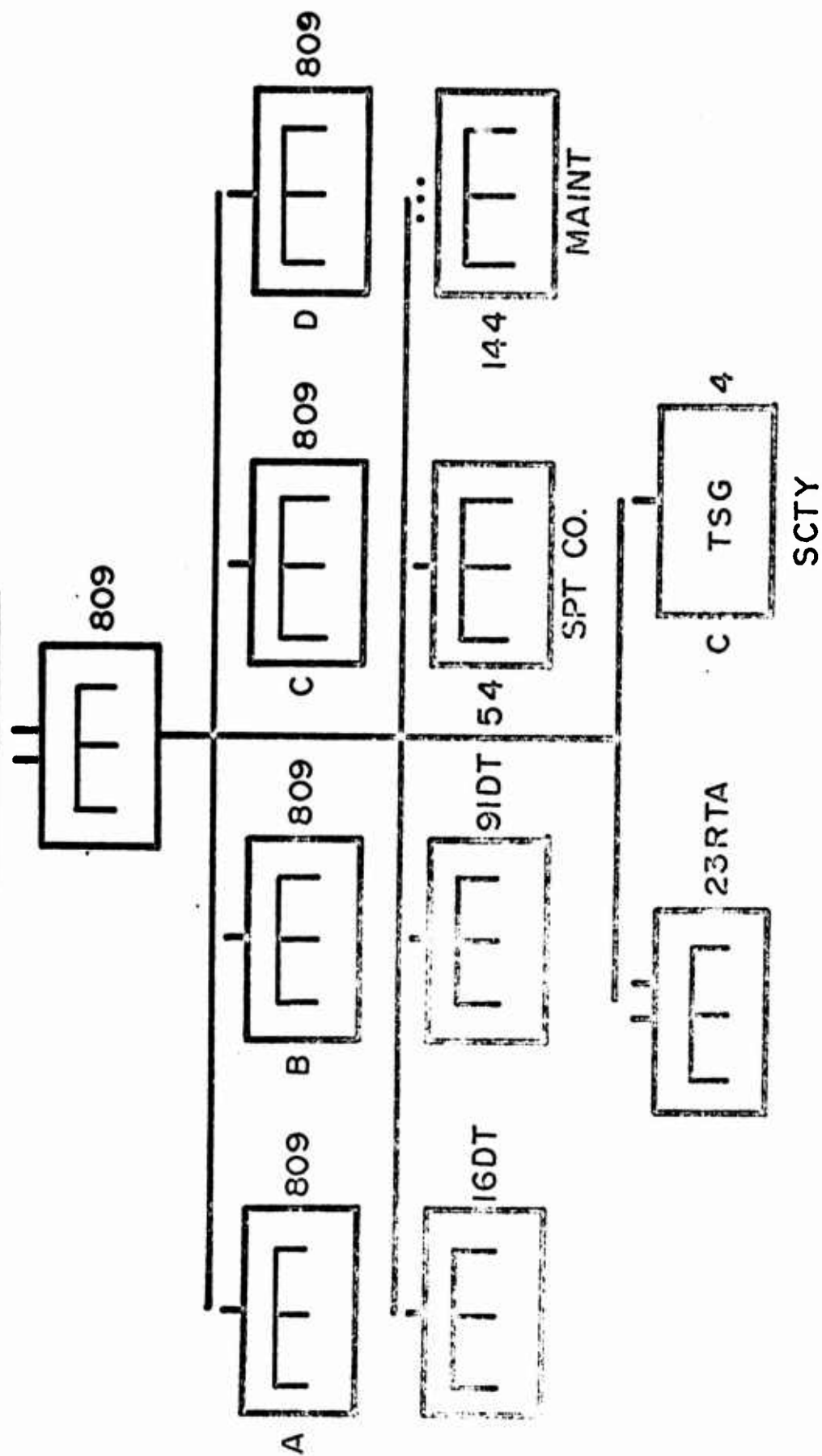
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